

BACKGROUND

Plaintiff is the assignee of all rights, titles, and interests in U.S. Patent Nos. 9,323,786 and 10,474,705 which were issued on April 26, 2016 and November 12, 2019, respectively.⁵ ECF No. 108-1-1.⁶ Plaintiff alleges that Defendants directly infringed upon Claim 1 of the '786 Patent and '705 Patents.

I. '786 Patent

A. Method & Description

The '786 Patent is a computer-implemented method of analyzing tags associated with images presented to users to “guide a user to a current interest.” ECF No. 108-1-1 at 14. When “starting a session of the computer-implemented method or algorithm, images appear one at a time.” *Id.* at 24. The computer-implemented method or algorithm selects the first image from a pool of images and the image always reflects a physical object, such as a food dish. *Id.* 17–24. Each image is associated with a plurality of tags that describe or characterize the physical object represented in the image. *Id.* at 16.

Users interact with the image by entering a positive, negative, or neutral input by, for example, clicking an “X” button for a negative response or a checkmark for a positive response. *Id.* at 25. Based on the preference indicated, the method or algorithm processes the set of tags

⁵ The '786 Patent is issued to applicant “Hungry-For-More Enterprises, LLC. *See* ECF No. 108-1-1. However, because Plaintiff claims it is “the exclusive owner by assignment of all rights, title, and interest in the '786 Patent,” and none of the Defendants contest ownership of the '786 Patent, the Court presumes that Plaintiff is the rightful owner of the '786 Patent.

⁶ Defendants provided various documents produced during the '786 and 705 Patents' prosecution history, *see* ECF Nos. 108-2–8; 112-2–4; 113-2–5, although Amazon provided the most comprehensive set of documents, *see* ECF No. 108-2–8. For ease of the reader, the Court will refer to the exhibits provided by Defendant Amazon when referencing the underlying prosecution history. ECF Nos. 108-11-2 (Notice of Non-Final Rejection, Prosecution History of U.S. Patent Application 14/827,205 (issued Dec. 1, 2015)); 108-11-3 (Applicant Response, Prosecution History of U.S. Patent Application 14/827,205 (submitted Jan. 25, 2016)); 108-11-5 (Notice of Allowance, Prosecution History of U.S. Patent Application 14/827,205 (issued March 2, 2016)); 108-11-6 (Notice of Non-Final Rejection, Prosecution History of U.S. Patent Application 16/162,024 (issued Jan. 11, 2019)); 108-11-6 (Applicant Response, Prosecution History of U.S. Patent Application 16/162,024 (filed April 9, 2019)); 108-11-8 (Notice of Allowance, Prosecution History of U.S. Patent Application 14/827,205 (issued July 12, 2019)).

associated with the image to determine the next set of tags. *Id.* 21–22. Once the method or algorithm identifies an image associated with the new tags, the image is presented to the user. *Id.* This process is repeated until the user identifies their current interest. *Id.* at 22. Once the user finds their current interest, they can select the image, and the method or algorithm provides information on how to acquire the presented object. *Id.* at 16.

For example, upon initiating a session, the algorithm might display an image of a cocktail. *See generally id.* If the user inputs a negative reaction, the algorithm may then present an image of an ice cream cone. *Id.* The process would repeat until the system presents a milkshake, the user’s current interest. The user can click the image of a milkshake and the method would recommend local restaurants serving milkshakes. *Id.*

B. Proceedings before the United States Patent and Trademark Office

On August 14, 2015, Plaintiff filed Patent Application Number 14/827/205. *Id.* at 2. Three months later, on December 1, 2015, the United States Patent and Trademark Office issued a claim rejection notice. ECF No. 108-11-2. As relevant here, the Examiner rejected Claim 1 on two bases: (1) the claim was “directed to non-statutory subject matter,” specifically the abstract idea of “analyzing information associated with a sequence of images to determine a user’s current interest,” in violation of 35 U.S.C. § 101; and (2) the claim was “anticipated by Bennett, US 2008/0147611,” in violation of 35 U.S.C. § 102(a)(1). *Id.* at 6–10.

Plaintiff responded to the Examiner’s findings and significantly modified Claim 1. *See* ECF No. 108-11-3. The amended version of Claim 1 is reproduced below:⁷

~~A computer-implemented method of analyzing tags associated with a sequence of images presented to a user in response to human machine inputs made by the user to present a current interest of the user, the method comprising:~~

⁷ Words that are struck through were deleted, and words that are underlined were added.

Receiving, ~~via a user interface of~~ from the electronic device, an input ~~from~~ by the user indicating a preference for the physical object represented by the one electronic image;

[. . .]

~~presenting, via a display of an electronic device, causing a presentation of only the one electronic image from among a the [sic] plurality of electronic images on a display of the electronic device, the one image representing a physical object and being associated with one set of tags from a plurality of tags, each tag of the one set of tags describing or characterizing attributes of the physical object represented by the one image;~~

receiving, ~~via a user interface of~~ from the electronic device, an input ~~from~~ by the user by indicating a preference for the physical object represented by the one electronic image;

processing, by the one or more computer devices, the plurality of tags specific to the user based on the preference and the one set of tags to determine a next set of tags from the plurality of tags specific to the user, the processing including:

in response to the preference for the physical object represented by the one electronic image being negative and the one electronic image being a first electronic image presented to the user during a session of directing the user to the current interest, removing the tags of the one set of tags from the plurality of tags specific to the user that are processed to determine the next set of tags, for a remainder of the session of directing the user to the current interest;

in response to the preference for the physical object represented by the one electronic image being negative and the one electronic image being not the first electronic image presented to the user during the session of directing the user to the current interest, removing tags of the one set of tags that are new relative to an immediately previous set of tags from the plurality of tags specific to the user that are processed to determine the next set of tags, for the remainder of the session of directing the user to the current interest; and

in response to the preference for the physical object represented by the one electronic image being positive, determining at least one additional tag from the plurality of tags specific to the user to add to the one set of tags, generating the next set of tags, the determining the at least one additional tag comprising:

determining weightings of the tags within the plurality of tags specific to the user based, at least in part, on (i) a number of times each tag of the plurality of tags specific to the user appears with at least one of the one or more tags of the one set of tags for the plurality of electronic images, and (ii) a number of times each tag of the plurality of tags specific to the user is associated with a positive and/or a negative preference by the user; and

determining the at least one additional tag based on the at least one additional tag having a highest weighting among the plurality of tags specific to the user;

Id. at 3–4. Plaintiff disputed that the Claim was directed towards an ineligible topic and argued that, as modified, Claim 1 was “directed to a non-abstract process that involves the active and dynamic manipulation of a plurality of tags” which “provides an objective basis for the user to arrive at a subjective interest.” *Id.* at 12. Furthermore, Plaintiff clarified that the processing involved in Claim 1 was not merely “adding and removing tags from an image,” but manipulating tags so that the method or algorithm “learns the preferences of the user for that particular session . . . and translates the learned preferences to a current interest.” *Id.* This methodology involved “weighting of tags” for “determining at least an additional tag to add to the one set of tags.” *Id.* at 13. As such, Plaintiff argued the Claim did “significantly more” than the abstract idea of “processing tags.” *Id.* Finally, Plaintiff argued that Claim 1 differed from the Bennett patent because Claim 1 relied on the presentation of a single image to users and disclosed a specific methodology for weighting and removing tags. *Id.* at 15.⁸

The USPTO agreed with Plaintiff and allowed Claim 1 as modified. In approving the Claim, the Examiner first found that the amended limitations “add[ed] significantly more to the claim as a whole” for the “reasons noted” in Plaintiff’s remarks. ECF No. 108-11-5 at 9. In particular, the Examiner found that “determining weightings and applying weightings as claimed move the claim as a whole beyond the abstract idea by solving a technical problem rooted in technology.” *Id.* The USPTO further stated that “[Plaintiff’s] arguments . . . with respect to [the]

⁸ ECF No. 108-11-3 at 15 (“Bennett does not disclose, ‘causing a presentation of *only the one electronic image* from among the plurality of electronic images on a display of the electronic device. Nor does Bennett disclose the specifics of the removing of tags from a plurality of tags specific to a user, or determining at least one additional tag from the plurality of tags specific to the user, in response to negative and positive preferences.”) (emphasis added)).

102 . . . rejection[] have been fully considered and are persuasive” and withdrew its rejection of Claim 1 with these modifications. *Id.* at 10.

Patent Application Number 14/827/205 was issued as Patent No. 9,323,786 (“the ’786 Patent”) on April 26, 2016. ECF No. 108-1-1.

II. ’705 Patent

A. Method, Description, and Proceedings before the United States Patent and Trademark Office

The ’705 Patent is a continuation of the ’786 Patent. *Id.* at 43. On October 16, 2018, Plaintiff filed Patent Application 16/162,024, which would eventually become the ’705 Patent. *See id.* at 34; ECF No. 108-11-6. As originally filed, Claim 25 read:⁹

Claim 25. A computer-implemented image search method filtered by multiple human-machine inputs on images presented to a user of the image search method, the method comprising the steps of:

determining a plurality of different digital images to present on the video display device to generate a sequence of digital images, each of the digital images being associated with a plurality of tags indicating one or more attributes of an image featured in the corresponding digital image;

receiving via a user input device *one of at least two input options*, the at least two input options including a *favorable indication of a preference* for the image featured in one of the digital images and an *unfavorable indication of a disinclination* for the image featured in the one of the digital images;

<in response to receiving the *unfavorable indication* for the image featured in the one of the digital images:

analyzing at least some of the tags to determine a next set of tags associated with a subsequent digital image;

adjusting weights of at least some of the tags based on an association relative to tags within the same category of tags to which the subsequent digital image belongs;

transitioning the one of the digital images with the subsequent digital image on the video display device to replace the one of the digital images with the subsequent digital image on the video display device; and

⁹ Because Plaintiff struck Claims 1-24 during prosecution, Claim 25 became Claim 1, the operative Claim in this case.

receiving via the user input device a further input corresponding to one of the at least two input options including a favorable indication for the subsequent digital image and an unfavorable indication for the subsequent digital image.>

ECF No. 108-11-6 at 8–10.

On January 11, 2019, the USPTO rejected Claim 25. *See generally id.* The Examiner rejected Claim 25 on three bases, finding: (1) Claim 25 was unpatentable as a “nonstatutory double patenting” of the ’786 Patent and U.S. Patent No. 9,779,160, *id.* at 4–6; (2) Claim 25 was directed towards the “the abstract idea of generating and presenting an image to a user in order to determine the user’s interest” in that it “create[d] a second list from a first list that are [sic] received at a remote computer,” *id.* at 10–11; and (3) Claim 25 was anticipated by a prior art, Bennett, US 2008/0147611, in violation of 25 U.S.C. § 102(a)(1), *id.* at 16.

In making this determination, the Examiner explicitly did not consider the portion of the method beginning with “in response to receiving the unfavorable indication” through “for the subsequent digital image.”¹⁰ *Id.* at 9 (35 U.S.C. § 101 analysis); *id.* at 20 (35 U.S.C. § 102(a)(1) analysis).¹¹ In doing so, the Examiner relied on the U.S. Patent Trial and Appeal Board decision in *Ex parte Schulhauser et al.*, which held that when a method claim is essentially two methods, each triggered by a different condition precedent, the Examiner need not consider both methods if one is invalid or preempted by a prior art.¹²

As applied, the Examiner implicitly found that Claim 25 encompassed two methods because the requisite steps depended on “receiving via a user input device *one of at least two input*

¹⁰ See ECF No. 108-11-6 at 9, 20 (stating “Please note: The following steps are executed if the indication is unfavorable. Given this contingent path is mutually exclusive to the above examined claim step based on favorable indication, no weight is given to this contingent path for examination purposes, re: Precedential Decision, *Ex parte SCHULHAUSER et al.*, Appeal 2013-007847- Application 12/184,020; https://www.uspto.gov/sites/default/files/documents/Ex%20parte/O20Schulhauser%202016_04_28.pdf”).

¹¹ For ease of the reader, this portion of the claim is indicated by angled brackets.

¹² See *Ex parte Schulhauser*, 2013-007847 (Apr. 28, 2016), https://www.uspto.gov/sites/default/files/documents/Ex%20parte%20Schulhauser%202016_04_28.pdf.

options:” a favorable preference and an unfavorable preference. *Id.* at 9, 20. If a favorable preference was received (the “favorable method”), then the steps triggered by an unfavorable preference (the “unfavorable method”) would not be executed, and vice versa. Because the Examiner found that the favorable method was directed towards an abstract idea and preempted by a prior art, Claim 25 was rejected in its entirety without evaluating the unfavorable method. *See generally id.*

Plaintiff responded to these findings on April 9, 2019. ECF No. 108-11-7. In its response, Plaintiff canceled Claims 1-24 and modified Claim 25 as follows:¹³

A computer-implemented image search method filtered by multiple human-machine inputs on images presented to a user of the image search method, the method comprising the steps of:

determining a plurality of different digital images to present on the video display device to generate a sequence of digital images, each of the digital images being associated with a plurality of tags indicating one or more attributes of an image featured in the corresponding digital image;

receiving, via a user input device, an unfavorable indication of a disinclination for the image features in the one of the digital images, the unfavorable indication being one of at least two input options, the at least two input options including, among the unfavorable indication, a favorable indication of a preference for the image featured in one of the digital images ~~and an unfavorable indication of a disinclination for the image featured in the one of the digital images~~;

~~in response to receiving the unfavorable indication of the image featured in the one of the digital images~~;

analyzing at least some of the tags to determine a next set of tags associated with a subsequent digital image;

adjusting weights of at least some of the tags based on an association relative to tags within the same category of tags to which the subsequent digital image belongs;

¹³ Words that are struck through were deleted, and words that are underlined were added.

transitioning the one of the digital images with the subsequent digital image on the video display device to replace the one of the digital images with the subsequent digital image on the video display device; and

receiving via the user input device a further input corresponding to one of the at least two input options including a favorable indication for the subsequent digital image and an unfavorable indication for the subsequent digital image.

ECF No. 108-11-7 at 2–3.

Plaintiff first argued that the modified Claim 25 was patent eligible because it reflected an improvement in computer functioning “by determining what the user’s implicit interests are without the user cognitively knowing or being able to describe such interests.” *Id.* at 9–11. Then, Plaintiff clarified that the changes “amended independent Claim 25 such that an unfavorable indication *must be received*.” *Id.* at 10 (emphasis added). Plaintiff further distinguished Claim 25 from Bennett on the basis that Bennett did not “disclose the specific scheme of weighting and adjusting as recited in independent claim 25.” *Id.* at 10.

On July 4, 2019, the Examiner agreed on both points, finding that the “adjusting weights of tags . . . moves the claim as a whole beyond the abstract idea by solving a technical problem rooted in technology” and that “Bennett alone or in combination with other cited prior art fails to teach and suggest the methods as claimed.” ECF No. 108-11-8 at 3–5. Patent Application Number 16/162,024 was issued as Patent No. 10,474,705 (“the ’705 Patent”) on April 26, 2016. ECF No. 108-1-1 at 31.

III. Current Suits

On February 13, 2023, Plaintiff filed suit against Defendants Amazon, Meta, and Microsoft. Plaintiff asserts all Defendants directly infringed upon Claim 1 of the ’786 and ’705 Patents. Generally, Plaintiff contends that the Defendants utilize “cookies” and other systems of user engagement (for example, “like” or “dislike” buttons) as tags and input to determine user preferences. *See generally* ECF Nos. 108-1-1; 112-1-1; 113-1-1. Plaintiff alleges Defendants

weigh or rank these tags and use the results to promote advertisements based on the user's perceived interests. *Id.* Plaintiff argues that this method of collecting user preferences and presenting advertising images based on those preferences infringes on Plaintiff's patented methods.

Defendants Amazon and Meta argue that the Patents are invalid under 35 U.S.C. § 101. Furthermore, all Defendants argue that Plaintiff has failed to state a claim of patent infringement by failing to plead sufficient facts regarding the Patents' material limitations. *See generally id.* Because the cases concern the same underlying patents, the Court considers these cases together.

LEGAL STANDARDS

I. Patent Validity under 35 U.S.C. § 101

To be eligible for patent protection, a patent must comprise "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." 35 U.S.C. § 101. However, "basic tools[s] of scientific and technological work," such as those related to laws of nature, natural phenomena, and abstract ideas, are not patentable. *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013).

In *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66 (2012) and *Alice Corp. Pty. v. CLS Bank Int'l*, 573 U.S. 208 (2014), the Supreme Court laid out a two-part framework to resolve patent eligibility disputes under § 101. First, courts must "determine whether the claims at issue are directed to one of those patent-ineligible concepts." *Alice*, 573 U.S. at 217. If so, courts must then "consider the elements of each claim both individually and as an ordered combination to determine whether the additional elements transform the nature of the claim into a patent-eligible application." *Id.* (internal quotations omitted). This second step is often described

as the search for an “inventive concept,” which ensures that the “patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.” *Mayo*, 566 U.S. at 72–73.

Patentability under 35 U.S.C. § 101 is a threshold legal issue that may properly be resolved at the motion to dismiss stage. *Bilski v. Kappos*, 561 U.S. 593, 602 (2010); *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121 (Fed. Cir. 2018).¹⁴ Although patent eligibility is a question of law, “there can be subsidiary fact questions which must be resolved en route to the ultimate legal determination.” *Aatrix*, 882 F.3d at 1128. For example, at step two of *Alice/Mayo*, the Court must examine whether the claims contain an “inventive concept.” Claims constitute inventive concepts when they “involve more than performance of well-understood, routine, [and] conventional activities previously known to the industry,” *Aatrix*, 882 F.3d at 1128, which itself is a question of fact. Thus, relying only on the materials appropriate at the motion to dismiss stage, “when the complaint contains concrete allegations that individual elements and the claimed combination are not well-understood, routine, or conventional activity, the asserted patent can survive a Rule 12(b)(6) motion at *Alice* step two.” *Mirror Imaging, LLC v. PNC Bank, N.A.*, No. W-21-CV-00518-ADA, 2022 WL 229363, at *4 (W.D. Tex. Jan. 26, 2022).

Once issued, a patent is presumed valid. 35 U.S.C. § 282(a). Parties challenging patent validity bear the burden of proving invalidity by clear and convincing evidence. *Microsoft Corp. v. I4I Ltd. P’ship*, 564 U.S. 91, 95 (2011). Patent validity can be determined at the Rule 12(b)(6) stage only when “there are no factual allegations that, taken as true, prevent resolving the eligibility question as a matter of law.” *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1125 (Fed. Cir. 2018). However, “plausible factual allegations may preclude dismissing a case

¹⁴ “While issues affecting both infringement and validity of the claims are before us, the Supreme Court has directed that we generally rule on validity issues even if we hold that the patents were not infringed.” *Mendenhall v. Cedarapids, Inc.*, 5 F.3d 1557, 1562 (Fed. Cir. 1993) (citing *Cardinal Chem. Co. v. Morton Int’l, Inc.*, 508 U.S. 83 (1993)).

under § 101 where, for example, ‘nothing on the record . . . refutes those allegations as a matter of law or justifies dismissal under Rule 12(b)(6).’” *Id.* (citing *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1097 (Fed. Cir. 2016)).

II. Motion to Dismiss: Direct Infringement

Federal Rule of Civil Procedure 12(b)(6) allows a party to move for the dismissal of a complaint for “failure to state a claim upon which relief can be granted.” To survive a motion to dismiss, “a complaint must contain sufficient factual matter, accepted as true, to ‘state a claim to relief that is plausible on its face.’” *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009) (quoting *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 570 (2007)). “A claim has facial plausibility when the plaintiff pleads factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged.” *Iqbal*, 556 U.S. at 678.

In considering a motion to dismiss under Rule 12(b)(6), all factual allegations from the complaint should be taken as true, and the facts are to be construed in the light most favorable to the nonmoving party. *Fernandez-Montes v. Allied Pilots Assoc.*, 987 F.2d 278, 284 (5th Cir. 1993). Still, a complaint must contain “more than labels and conclusions, and a formulaic recitation of the elements of a cause of action will not do.” *Twombly*, 550 U.S. at 555. “[N]aked assertions’ devoid of ‘further factual enhancement,’” and “threadbare recitals of the elements of a cause of action, supported by mere conclusory statements,” are not entitled to the presumption of truth. *Iqbal*, 556 U.S. at 678 (quoting *Twombly*, 550 U.S. at 557); *see also R2 Invs. LDC v. Phillips*, 401 F.3d 638, 642 (5th Cir. 2005) (stating that the Court should neither “strain to find inferences favorable to plaintiffs” nor accept “conclusory allegations, unwarranted deductions, or legal conclusions.”).

Although “patentees need not prove their case at the pleading stage,” *In re Bill of Lading Transmission & Processing Sys. Patent Litig.*, 681 F.3d 1323, 1339 (Fed. Cir. 2012), and “the patentees’ pleading obligations are not insurmountable, a patentee may subject its claims to early dismissal by pleading facts that are inconsistent with the requirements of its claims.” *Bot M8 LLC v. Sony Corp. of Am.*, 4 F.4th 1342, 1342 (Fed. Cir. 2021). Ultimately, the “level of detail required in any given case will vary depending upon a number of factors, including the complexity of the technology, the materiality of any given element to practicing the asserted claim(s), and the nature of the allegedly infringing device.” *Bot M8*, 4 F.4th at 1353.

Finally, in determining whether a plaintiff’s claims survive a Rule 12(b)(6) motion to dismiss, the Court may properly review: (1) the facts set forth in the complaint; (2) documents attached to the complaint; and (3) matters of which judicial notice may be taken under Federal Rule of Evidence 201. *Walker v. Beaumont Indep. Sch. Dist.*, 938 F.3d 724, 735 (5th Cir. 2019). “Courts may take judicial notice of government records, like prosecution history available on the U.S. Patent & Trademark Office’s Public PAIR site, even when resolving a Rule 12(b)(6) motion.” *Vervain, LLC v. Micron Tech., Inc.*, 6:21-cv-487-ADA, 2022 WL 23469, at *5 n.2 (W.D. Tex. Jan. 3, 2022); *Secured Mail Sols. LLC v. Universal Wilde, Inc.*, 873 F.3d 905, 913 (Fed. Cir. 2017) (“In ruling on a 12(b)(6) motion, a court need not accept as true allegations that contradict matters properly subject to judicial notice or by exhibit, such as the claims and the patent specification.”) (internal quotation omitted); FED. R. EVID. 201(c). Thus, the Court takes judicial notice of the prosecution history of the ’786 and ’705 Patents.

DISCUSSION

I. Patent Validity, 35 U.S.C. § 101

A. Alice Step 1: The asserted claims of the '786 and '705 Patents are directed to an abstract idea.

Defendants Amazon and Meta¹⁵ argue that the '786 and '705 Patents are invalid because they are directed towards the abstract ideas of “generating and presenting an image to a user in order to determine the user’s interest” and “methods of organizing human activity.” ECF No. 108-11 at 17 (citing *Broadband iTV, Inc. v. Amazon.com, Inc.*, 6:20-cv-921-ADA, 2022 WL 4703425, at *11 (W.D. Tex. Sept. 30, 2022) for the proposition that “the Federal Circuit has held patents directed to collecting information about a user’s past behavior and providing content based on that information to be abstract and ineligible under § 101”); *see also* ECF No. 112-11 at 14–18 (arguing Patents fall into the categories of “methods of organizing human activity” and “generating and presenting an image to a user in order to determine the user’s interest”); *id.* at 15 (“This is nothing more than using a computer as a tool to do what humans have long done—make recommendations by analyzing a user’s preferences.”).

The U.S. Patent and Trademark Office previously determined that, even as amended, both Patents were directed towards abstract ideas. *See* ECF No. 108-11-5 at 5 (finding Claim 1 of '786 Patent was “directed to determining a user’s current interest by analyzing images of physical objects which is considered to be an abstract idea”); ECF No. 108-11-6 at 6 (“Claims 25-35 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.”). The Court finds these arguments persuasive and finds that Claim 1 of the '786 and '705 Patents are directed towards an ineligible subject matter.

¹⁵ Defendant Microsoft does not contest the Patents’ validity. *See* ECF No. 112-10.

B. Alice Step 2: The asserted claims of the '786 and '705 Patents recite an inventive concept or technological improvement.

Amazon and Meta argue that the Patents provide no inventive concept that render the claims patent eligible.

In particular, both Defendants argue that (1) “speed or efficiency” of application is insufficient to present an inventive concept), ECF No. 108-11 at 18; 112-11 at 16, 19 (same); (2) allowing users to “find relevant information quickly” does not focus on an “improvement in computers as tools” but merely automate conventional human activity, ECF Nos. 108-11 at 18; 112-11 at 16 (same); and (3) the Patents recite generic steps for implementing an abstract idea, ECF Nos. 108-11 at 20 (objecting that the Patents “do not disclose any specific algorithm, special programming, or any new hardware to be used,” and thus, merely “recite generic steps for implementing the abstract idea”); 112-11 at 18 (arguing Patents do not offer “any specific algorithm, new programmed machine, or any hardware to be used” but instead rely on “readily-available technology” and conventional computers, and use “well understood” components such as servers, databases, and memory).

The USPTO considered these arguments when it originally determined that the Patents were directed towards an ineligible subject matter. Specifically, the Examiner found that the '786 and '705 Patents offered no improvement to the functionality of computers and, instead, simply used conventional technology to apply an abstract concept. *See* ECF No. 108-11-2 at 8 (“[T]he elements involved in [the '786 Patent] undertake their roles in performance of their activities according to their generic functionalities which are well-understood, routine and conventional.”); *id.* at 9 (finding “the claim [in the '786 Patent] does not effect an improvement to another technology or technical field”); ECF No. 108-11-6 at 14 (finding Claim 25 [of the '705 Patent] did not “effect an improvement to another technology or technical field,” did not “amount to an

improvement to the functioning of a computer itself,” or “move beyond a general link of the use of an abstract idea to a particular technological environment”); *see also id.* at 13 (finding Claim 25 of the ’705 Patent “relies on recitation of concrete, tangible components that are insufficient to confer patent eligibility to an otherwise abstract idea,” is “simply a generic computer that ‘administers’ processes,” and that the physical components “behave[] as expected” according to their ordinary use); *id.* at 14 (finding Claim 25 of the ’705 Patent “merely amounts to the application or instructions to apply the abstract idea on a computer, and is considered to amount to nothing more than requiring a generic computer system (e.g. a generic computer system comprising a generic database; a generic element for receiving input; a generic element for displaying output) to merely carry out the abstract idea itself”).

However, the Examiner determined that the amended claims provided an inventive concept by improving the “technical field of recommendations” through “new recommendation techniques and results.” ECF No. 108-11-7 at 9–10 (Plaintiff arguing the method “improves the functionality of the computer by determining what the user’s implicit interests are without the user cognitively knowing or being able to describe such interests”); ECF No. 108-11-5 at 9 (finding that the amended complaint “adds significantly more to the claim as a whole for reasons noted in the Applicants’ remarks filed January 25, 2016”); ECF No. 108-8 at 4 (same). In particular, the Examiner decided that the amended claims “add[ed] significant more to the claim as a whole” and, as such, went beyond a mere “abstract idea.” ECF Nos. 108-11-5 at 9 (’786 Patent); 108-11-8 at 4 (’705 Patent). The Examiner specifically noted that the Patent’s method of “adjusting the weights of tags” and using those weighted tags to select the next image solved a “technical problem rooted in technology.” ECF No. 108-11-8 at 4 (’705 Patent); ECF Nos. 108-11-5 at 9 (’786 Patent).

Thus, Defendants present arguments considered and refuted by the USPTO. As such, Defendants have failed to prove invalidity by clear and convincing evidence. *Microsoft*, 564 U.S. at 95.

II. Direct Infringement

A. Amazon

Plaintiff alleges that Amazon directly infringed upon “one or more claims, including without limitation at least claim 1” of the ’786 and ’705 Patents. ECF No. 108-1 at 5–6.

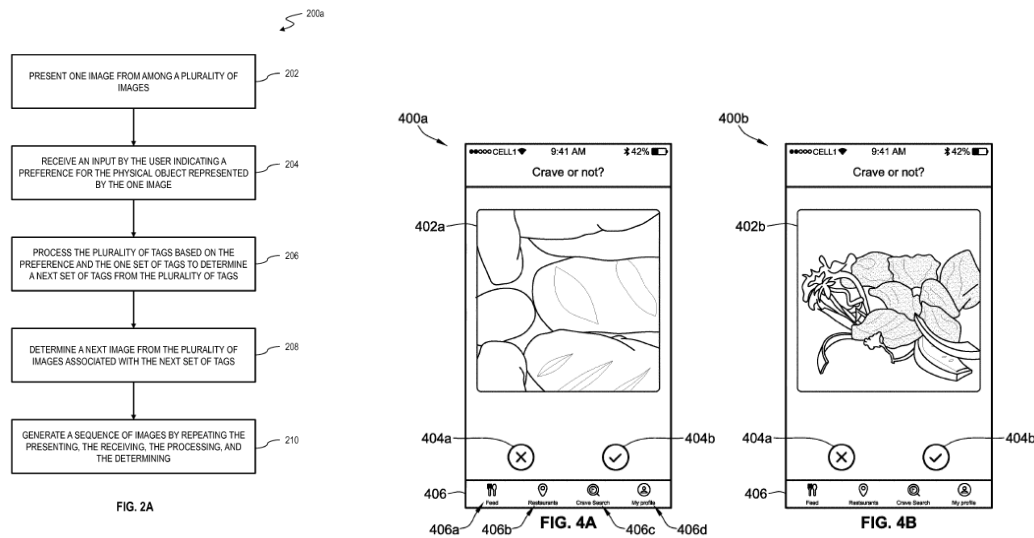
A party directly infringes upon a patent when it “makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent.” 35 U.S.C. § 271(a). Direct infringement of a method patent, like the ’786 and ’705 Patents, occurs only when the infringer utilizes and completes all steps of the method. *NTP, Inc. v. Rsch. In Motion, Ltd.*, 418 F.3d 1282, 1318 (Fed. Cir. 2005) (“A method or process consists of one or more operative steps, and, accordingly, it is well established that a patent for a method or process is not infringed unless all steps or stages of the claimed process are utilized.”) (internal citation omitted); *Int’l Bus. Machines Corp. v. Booking Holdings Inc.*, 775 F. App’x 674, 677 (Fed. Cir. 2019) (“Direct infringement requires that all the steps of a claimed method be “performed by or attributable to a single entity.”). Thus, “to state a viable direct infringement claim, a plaintiff must plead facts that plausibly suggest that the accused product meets each limitation of the asserted claim or claims.” *Encoditech, LLC v. Citizen Watch Co. of Am., Inc.*, No. SA-18-CV-1335-XR, 2019 WL 2601347, at *3 (W.D. Tex. June 25, 2019).

1. ’786 Patent

Plaintiff alleges that Amazon violated Claim 1 of the ’786 Patent. *See generally* ECF No. 108-1. Amazon responds that Plaintiff has failed to state a claim of direct infringement regarding

the '786 Patent because it pled facts inconsistent with two material limitations of the '786 Patent. *See generally* ECF No. 108-11.

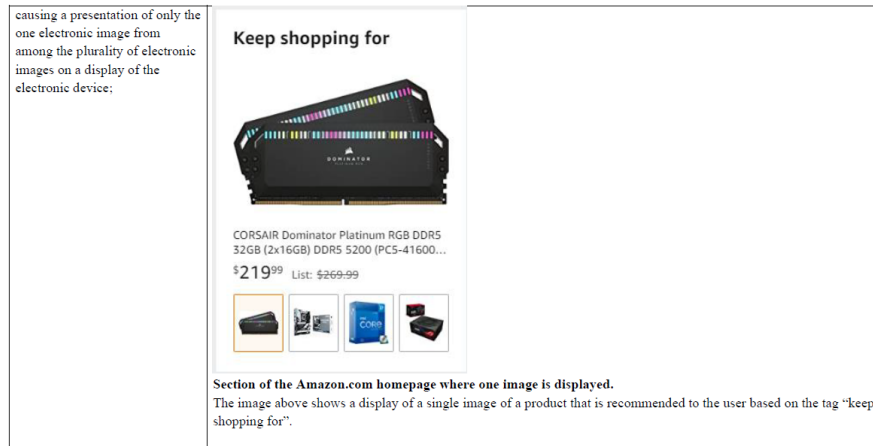
Claim 1 is for a “computer-implemented method comprising,” in part, “causing a presentation of *only the one electronic image* from among the plurality of electronic images on a display of the electronic device.” ECF No. 108-1-1 at 26–27 (emphasis added). The limitation is described in Figures 2A, 4A, and 4B of the '786 Patent, reproduced below. Figure 2A is a flowchart demonstrating the method's algorithmic process while Figures 4A and 4B provide a visual of a user interface. *Id.* at 24. Defendant Amazon refers to this limitation as the “only the one” limitation because the limitation presents a single electronic image to users. The Court adopts this shorthand for purposes of this Order.



Id. at 5, 8.

According to its claim chart, Plaintiff alleges that Amazon violates the “only the one” limitation by “show[ing] a display of a single image of a product that is recommended to the user based on the tag ‘keep shopping for.’” *Id.* at 63. Plaintiff provided a screenshot of the Amazon.com

homepage which reads “keep shopping for” and displays an image of a “CORSAIR” product with four smaller images beneath it.



Id.

Amazon first argues that the “only the one” limitation is material to Claim 1, meaning that Plaintiff must include more detailed facts regarding infringement on this element. ECF No. 108-11 at 9; *see also Bot M8*, 4 F.4th at 1353 (“The level of detail required in any given case will vary depending upon a number of factors, including the complexity of the technology, the materiality of any given element to practicing the asserted claim(s), and the nature of the allegedly infringing device.”). Plaintiff does not dispute that this limitation is material. Thus, the Court agrees that Plaintiff must plead sufficiently detailed facts on this material element.

Amazon then argues that Plaintiff failed to plead infringement on this basis because the facts pled, i.e., the screenshot from its homepage, do not display the presentation of “only the one electronic image.” ECF No. 108-11 at 9. Instead, the display presents a total of five images (one larger image at the top with four smaller images below). *Id.* Thus, Amazon argues that a “straightforward application” of the “only the one” electronic image limitation is inconsistent with pleadings that demonstrate the use of multiple images. *Id.* As such, Amazon concludes that

Plaintiff “subjects its claims to ‘early dismissal by pleading facts that are inconsistent with the requirements of its claims.’” *Id.* at 10 (citing *Bot M8*, 4 F.4th at 1346).

In response, Plaintiff “submits that the above-referenced excerpt indicates the display of a single item (the top image) among a plurality (the bottom images) of electronic images” which is consistent with the limitation. ECF No. 108-13 at 8. Plaintiff further characterizes Amazon’s argument as one of claim construction and states it is better suited for a *Markman* hearing. *Id.* at 8. Amazon replies that “there is no ‘claim construction’ exception to the plausibility standards” required by *Twombly* and *Iqbal* and that the Court need not accept Plaintiff’s “implausible” argument[] at the pleading state” when such argument relies on an “implausible or unreasonable reading of a claim term’s meaning.” ECF No. 108-11 at 13 (citing *Sapphire Crossing LLC v. Robinhood Markets, Inc.*, 1:18-cv-1717, 2021 WL 149023, at *5 (D. Del. Jan. 15, 2021) (collecting cases)).

The Court first holds that this issue is capable of resolution without a claim construction hearing. The Court agrees with Plaintiff that claim construction at the pleading stage is generally inappropriate because the Court lacks sufficient briefing and information on the underlying patent prosecution. *See Nalco Co. v. Chem-Mod, LLC*, 883 F.3d 1337, 1350 (Fed. Cir. 2018). However, in this instance, the plain language of the limitation, coupled with the demonstrative figures in the patent application and the patent specifications, convince the Court that the “only the one” limitation, indeed, relies on the presentation of a single image.

The limitation in question reads: “a computer-implemented method comprising . . . causing a presentation of only the one electronic image from among the plurality of electronic images on a display of the electronic device.” ECF No. 108-1-1 at 27. Plaintiff argues that the “from among the plurality” language supports its determination that the screenshot displays a single item, the

largest image, from “among a plurality (the bottom images) of electronic images.” ECF No. 108-13 at 8. The Court disagrees. By focusing on the “plurality” language, Plaintiff wholly overlooks that the limitation specifies presentation of “only the one” image. Furthermore, Plaintiff’s argument improperly synonymizes “*causing* a presentation of only the one electronic image” with *emphasizing* “only the one” image among several.

Finally, Plaintiff ignores the Patent’s specifications and illustrative diagrams. Figures 4A and 4B display a single image on the user interface. According to the specifications, Figure 4A reflects the start “of a session” in which “images appear *one at a time*.” ECF No. 108-1-1 at 24 (emphasis added). Likewise, Figure 4B shows a “subsequent user interface” that, like 4A, reflects a single image. *Id.* at 25. This understanding is further supported by Figure 2A which describes the method’s algorithmic process. *See id.* at 6. Item 208 of Figure 2A reads “determine a next image from the plurality of images associated with the next set of tags.” *Id.* at 5. The specification later explains this function as presenting one image:

Upon determining the set of tags based on the preference and the set of tags for the previous image, the computer implemented method or algorithm **200a** determines the next image to present to the user (**208**). The next image is an image from a plurality of images that is associated with the next set of tags. Multiple images can be associated with the same set of tags. Accordingly, the computer-implemented method or algorithm *selects a single image* from the images that share the same set of tags.

Id. at 21.

Accordingly, the Court finds that the ’786 Patent contains the material limitation of presenting “only the one electronic image.” *See* ECF Nos. 108-1-1 at 27; 108-11-2; 108-11-3; 108-11-5. Because the complaint includes no factual content supporting its allegation that Amazon presents users with a single image at a time and, instead presents evidence that Amazon displays multiple images to users, the Court determines that Plaintiff’s claim is subject to “early dismissal

by pleading facts that are inconsistent with the requirements of its claims.” *Bot M8*, 4 F.4th at 1346. This claim is dismissed.¹⁶

2. '705 Patent

Plaintiff alleges that Amazon infringed upon Claim 1 of the '705 Patent. Claim 1 reads:

1. A computer-implemented image search method filtered by multiple human-machine inputs on images presented to a user of the image search method, the method comprising the steps of:

determining a plurality of different digital images to present on the video display device to generate a sequence of digital images, each of the digital images being associated with a plurality of tags indicating one or more attributes of an image featured in the corresponding digital image;

receiving, via a user input device, an unfavorable indication of a disinclination for the image features in the one of the digital images, the unfavorable indication being one of at least two input options, the at least two input options including, among the unfavorable indication, a favorable indication of a preference for the image featured in one of the digital images;

analyzing at least some of the tags to determine a next set of tags associated with a subsequent digital image; adjusting weights of at least some of the tags based on an association relative to tags within the same category of tags to which the subsequent digital image belongs;

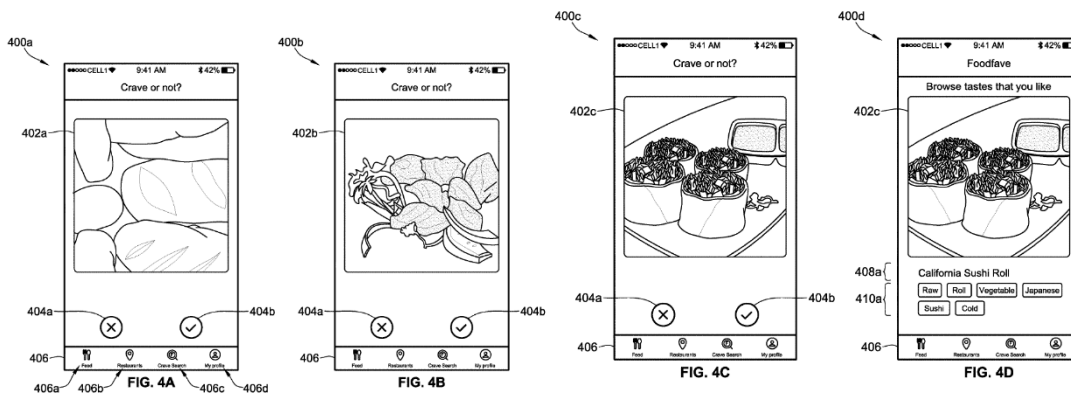
transitioning the one of the digital images with the subsequent digital image on the video display device to replace the one of the digital images with the subsequent digital image on the video display device; and

receiving via the user input device a further input corresponding to one of the at least two input options including a favorable indication for the subsequent digital image and an unfavorable indication for the subsequent digital image.

ECF No. 108-1-1 at 50. Essentially, the method presents a single image to users and, after receiving “an unfavorable indication of a disinclination for the image features,” adjusts the weights of tags associated with that disfavored image, and transitions to a second image. Users can then select a positive or a negative input regarding the second image.

¹⁶ Because the Court resolves Plaintiff’s '786 infringement claim on the “only the one” limitation, the Court need not consider Amazon’s arguments regarding Claim 1’s remaining limitations.




























The limitation is demonstrated in Figures 4A, 4B, 4C, and 4D of the '705 Patent, reproduced below. *See id.* at 37–38. These figures illustrate how the user interface transitions from screen to screen. For example, after a user selects one of the inputs in Figure 4A or 4B—the “X” icon to express a negative preference or the check mark (“✓”) icon to express a positive preference—the screen transitions to Figure 4C. *Id.* at 54. If the user selects the image, represented by 402c, the interface transitions to Figure 4D which displays the “title or caption” of the image and the tags associated with it. *Id.* Defendant Amazon refers to this limitation as the “transition” and “replace” limitation because of how the Patent transitions from one screen to another. The Court adopts this shorthand for purposes of this order.



Id. at 37–38.

Plaintiff asserts that Amazon violates the “transition” and “replace” limitation via the Amazon website. Specifically, Plaintiff “contends that the Amazon webstore will display digital images and transition to subsequent digital images on a user’s video display device,” and that the “recommended feature” function allows for “transitioning through Amazon’s store place by scrolling through Amazons lists of products represented by digital images.” *Id.* Plaintiff offers the following image as an example:

Top picks for you

 Sparkling Citrus Ice 124 x 17 Fl Oz Variety Pack, 408 Fluid Ounce ★★★★★ 256 \$7.68 Get it as soon as Monday, Nov 7	 Propel, Kiwi Strawberry, Zero Calorie Sports Drinking Water... ★★★★★ 47,051 \$7.68 Get it as soon as Monday, Nov 7	 Bai Coconut Flavored Water; Malakal Coconut, Antioxidant... ★★★★★ 20,841 \$18.63 Get it as soon as Sunday, Nov 6	 Gatorade Zero Sugar Thirst Quencher, Cool Blue Variety... ★★★★★ 6,437 \$13.49 Get it as soon as Monday, Nov 7	 Welch's Fruit Snacks, Mixed Fruit, Gluten Free, Bulk Pack, 0.9 oz... ★★★★★ 89,759 \$8.48 Get it as soon as Sunday, Nov 6	 Gatorade Zero Sugar Thirst Quencher, Glacier Cherry... ★★★★★ 36,727 \$16.29 Get it as soon as Monday, Nov 7	 Gatorade Original Thirst Quencher 3-Flavor Frost Variety Pack, 20... ★★★★★ 28,079 \$13.49 Get it as soon as Sunday, Nov 6	 CELSIUS Essential Energy Drink 12 Fl Oz, Sparkling Orange (Pack of... ★★★★★ 46,178 \$20.04 Get it as soon as Tuesday, Nov 8	 Hint Water Best Sellers Pack (Pack of 12, 16 Ounce Bottles, 3 Bottles... ★★★★★ 87,323 \$16.49 Get it as soon as Tuesday, Nov 8
 Sparkling ICE, Black Raspberry Sparkling Water, Zero Sugar... ★★★★★ 130,944 \$10.98 Get it as soon as Sunday, Nov 6	 Bai Flavored Water, Zambia Bing Cherry, Antioxidant Infused... ★★★★★ 16,654 \$23.18 Get it as soon as Sunday, Nov 6	 BODYARMOR Lyte Sports Drink Low-Calorie Beverage, Natural... ★★★★★ 29,305 \$14.88 Get it as soon as Monday, Nov 7	 Monster Energy Ultra Violet Sugar Free Energy Drink, 16... ★★★★★ 59,879 \$36.78 Get it as soon as Sunday, Nov 6	 BODYARMOR Sports Drink Sports Beverage, Strawberry Banana... ★★★★★ 52,566 \$14.88 Get it as soon as Tuesday, Nov 8	 Goldfish Crackers Big Smiles with Cheddar, Golden, and Pretzel... ★★★★★ 74,701 \$11.88 Get it as soon as Monday, Nov 7	 PLANTERS Deluxe Lightly Salted Whole Cashews, 1lb 2.25oz... ★★★★★ 69,432 \$9.98 Get it as soon as Sunday, Nov 6	 Sparkling ICE Naturally Mix Flavored Sparkling Water, Zero... ★★★★★ 897 \$31.50 Get it Nov 4 - 9	 Tropicana Apple Juice, 10 Fl Oz (Pack of 24) ★★★★★ 38,347 \$15.12 Get it as soon as Tuesday, Nov 8
 Diet Pepsi Soda, 7.5 Ounce Mini Cans, 10 Pack ★★★★★ 33,580 \$5.59 Get it as soon as Sunday, Nov 6	 Dole Fruit Bowls Cherry Mixed Fruit in 100% Juice, Gluten Free... ★★★★★ 49,439 \$7.49 Get it as soon as Sunday, Nov 6	 Sparkling Ice Coconut Pineapple, 17 oz ★★★★★ 422 \$1.00 Get it as soon as Monday, Nov 7	 Maruchan Ramen Chicken, 3.0 Oz, Pack of 24 ★★★★★ 61,851 \$7.49 Get it as soon as Sunday, Nov 6	 Welch's Fruit Snacks, Berries 'N' Cherries, Gluten Free, Bulk Pack... ★★★★★ 24,344 \$8.48 Get it as soon as Sunday, Nov 6	 Royal Dansk Danish Cookie Selection, No Preservatives or... ★★★★★ 72,724 \$3.38 Get it as soon as Sunday, Nov 6	 Velveeta Shells & Cheese Original Microwavable Shell Pasta &... ★★★★★ 20,319 \$7.97 Get it as soon as Sunday, Nov 6	 Fiji Natural Artesian Water, 16.9 Fl Oz (Pack of 24) ★★★★★ 38,280 \$22.54 Get it as soon as Sunday, Nov 6	 Quaker Cherry Granola Bars, 3 Flavor Variety Pack 58 Count... ★★★★★ 81,385 \$16.49 Get it as soon as Sunday, Nov 6

Id. at 96–97.

Amazon argues that the complaint fails on two points. First, Amazon argues that its website transitions among images by manual scrolling. ECF No. 108-11 at 14. Because “scrolling” is not a negative input and the patented “transition” is prefaced on receiving an unfavorable user input, *see* ECF No. 108-1-1 at 56, Amazon maintains Plaintiff has failed to state facts consistent with infringement. ECF No. 108-11 at 15.

The Court need not decide whether “scrolling” constitutes an unfavorable indication because Plaintiff has adequately pled facts indicating that Amazon offers a negative input option. In particular, Plaintiff asserts that Amazon allows users to select “‘Not Interested’ on any post in their recommended feed,” and that users can “indicate favor *or* *disfavor* . . . using the review feature.” ECF No. 108-1-1 at 82. Plaintiff further cites Amazon’s “Improve Your Recommendations” page which suggests readers can “improve your recommendations by excluding certain purchases from being considered” by turning off a “use this item for recommendation” switch. *Id.* at 84. Put simply, Plaintiff has “place[d] the alleged infringer on notice of what activity . . . is being accused of infringement,” which “is enough” at this stage. *Bot M8*, 4 F.4th at 1352.

Alternatively, Amazon argues that the '705 Patent relies on an application, not a user, transitioning between images. ECF No. 108-11 at 15. This argument is persuasive. The '705 Patent clearly relies on a “computer-implemented method” in which an underlying application transitions among images. See ECF No. 108-1-1 at 46 (“The applications control the user interface devices and the display devices to present the images to the user and to receive inputs from the user indicating the user’s preferences for the images.”) (reference to figures omitted); *id.* at 54 (“Specifically, upon the user selecting one of the user interface elements, the UI 400a transitions to UI 400b. UI 400b includes a new image 402b.”); *id.* at 55 (“In response to the user selecting the user interface element, the application causes a transition between the UI and the UI.”) (internal references to figures omitted); *id.* (“Upon selecting an entity, such as the first entity associated with the first user interface element, the application causes a transition between the UI to the UI.”) (internal references to figures omitted).

In contrast, Plaintiff asserts that Amazon’s “recommended feature [] allows for transitioning through Amazon’s store place by scrolling through Amazons lists of products represented by digital images.” ECF No. 108-1-1 at 97. Simply put, the '705 Patent method facilitates the transition of images; Amazon’s “recommended feature” relies on the *user* transitioning amongst images. In so doing, Plaintiff directly contradicts Claim 1, which is directed to a “computer-implemented [] method,” and the specification’s repeated statements that “the application causes the transition,” *id.* at 25:17-20, 25:28-31 (emphasis added). As such, Plaintiff has failed to show that the Accused Product transition or replace images. This claim is dismissed.

Because the Court determines that Plaintiff has failed to state a claim of direct infringement of the '786 and '705 Patents, Plaintiff’s complaint (ECF No. 108-1-1) is dismissed.

B. Meta

Plaintiff alleges that Meta, through its application Instagram, directly infringed upon “one or more claims, including without limitation at least claim 1” of the ’786 and ’705 patents. ECF No. 112-1 at 5–6.

1. ’786 Patent

Plaintiff alleges that Meta infringed Claim 1 of the ’786 Patent. *See generally id.* Meta responds that Plaintiff has failed to state a claim of direct infringement because it pled facts inconsistent with the “characterizing” and “determining weightings” limitations. ECF No. 112-11 at 23.

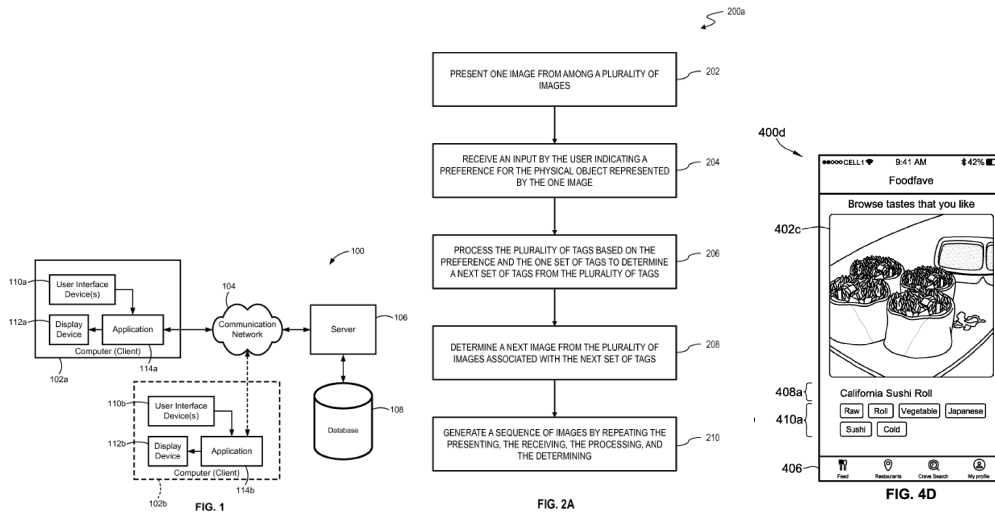
a. “Characterizing” Limitation

Claim 1 of the ’786 Patent is for a “computer-implemented method comprising,” in part: transmitting, from the one or more computer devices, one electronic image, from among a plurality of electronic images stored on the one or more computer devices, to the electronic device, *the one electronic image representing a physical object within the category of physical objects* and being associated with one set of tags from the plurality of tags specific to the user, each tag of the one set of tags *describing or characterizing attributes of the physical object* represented by the one electronic image

ECF No. 112-1-1 at 26 (emphasis added). For purposes of this order, the Court will refer to this limitation as the “characterizing” limitation because the tags must describe or characterize attributes of the objects represented in the image.

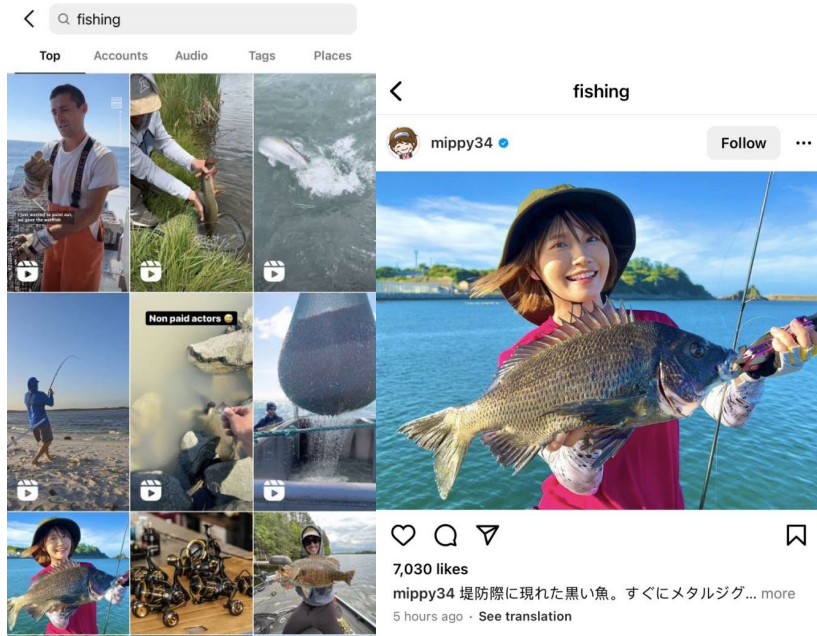
The limitation is illustrated in Figures 1, 2A, and 4D, reproduced below. *Id.* at 4–5, 9. As previously described, *supra* Section II(A)(1), Claim 1 transmits a single electronic image to a user. Each image is associated with primary and secondary tags. Each tag “describes or characterizes attributes of the physical object represented by the one image,” *id.* at 14, and the database stores these tags as indicated in Figure 1. *Id.* at 19. Figure 2A demonstrates the process of analyzing the

tags associated with images presented to the user and Figure 4D shows that users can view these tags once they select an image. *Id.* at 25.



Id. at 4–5 (Figures 1 and 2A), 9 (Figure 4D).

Plaintiff states that the below exemplifies Meta’s infringement of the “characterizing” limitation. *Id.* at 65. The provided screenshot reflects “video and image media” presented to users after they search the tag “fishing.” *Id.* Plaintiff contends that the “images presented on the Instagram app are stored on a Meta electronic device before being served to the user’s device,” and that the images “are tagged according to some system such that the use of the Instagram ‘search’ function will yield image results consistent with the entered tag or set of tags.” *Id.* Thus, the below images reflect physical objects associated with the tag “fishing.” According to Plaintiff, when a user selects “one image from the above plurality of images associated with the tag ‘fishing,’” the application presents that only that image. *Id.* at 66.



Id. at 65–66.

Meta argues that these images contain “different physical objects or no physical objects at all, e.g., boating or a group of people” and are therefore inconsistent with the ’786 Patent’s requirement that the objects fall “within a category of physical objects.” ECF No. 112-11 at 23.

The Court disagrees. Meta is correct that Plaintiff’s exhibit presents a variety of objects and locations; however, this is consistent with the ’786 Patent’s specifications, which clarify that the method or algorithm can present images of various physical objects and locations. ECF No. 112-1-1 at 17 (“The physical object can be any physical (tangible) object that is representable by an image. By way of example, and without limitation, the physical objects can be food dishes, consumer goods, such as clothing, automobiles, etc., *physical locations*, such as vacation spots, museums, sports venues, etc.”) (emphasis added); *see also id.* (“The database [] includes information with respect to the location of the entity associated with the physical object and/or the image that represents the physical object. By way of example, the physical object can represent a food dish and the physical entity represents the restaurant or store (e.g., market, grocery store, etc.)

that offers the food dish.”). It is entirely consistent with the Patent to present different, but related, images throughout a session. Indeed, a method that repeatedly presented the same image would be of little value.

Relatedly, Meta contends that Plaintiff failed to allege that Instagram’s tags “characteriz[e] attributes of the different physical object[s within the category of physical objects].” *Id.* at 24. To the extent that Meta argues the tag “fishing” does not characterize the presented images, the Court is unpersuaded by this argument. All of the images in this exhibit are examples of objects or locations that could relate to “fishing.” Furthermore, the Court is familiar with how the Instagram application operates. *See Iqbal*, 556 U.S. at 663–64 (stating courts must evaluate claims “drawing on its experience and common sense”). All Instagram users understand that tags characterize attributes of the image—otherwise, the application’s ability to search for images by tags would be useless. Thus, this argument is meritless.¹⁷

Plaintiff has adequately pled facts indicating infringement of the “characterizing” limitation.

b. “Determining Weightings” Limitation

Claim 1 also includes “processing, by the one or more [sic] computer devices, the plurality of tags specific to the user based on the preference and the one set of tags to determine a next set of tags from the plurality of tags specific to the user.” ECF No. 112-1-1 at 27. The method or algorithm functions differently depending on whether the input is positive or negative. *Id.* In the former situation:

in response to the preference for the physical object represented by the one electronic image being positive, determining at least one additional tag from the

¹⁷ Although tags can sometimes be humorous and not literally describe the image presented, the claim chart clearly indicates that the tag “fishing” was used to elicit the images. “Fishing” can describe or characterize the images presented.

plurality of tags specific to the user to add to the one set of tags, generating the next set of tags, the determining the at least one additional tag comprising:

determining weightings of the tags within the plurality of tags specific to the user based, at least in part, on (i) a number of times each tag of the plurality of tags specific to the user appears with at least one of the one or more tags of the one set of tags for the plurality of electronic images, and (ii) a number of times each tag of the plurality of tags specific to the user is associated with a positive and/or a negative preference by the user; and

determining the at least one additional tag based on the at least one additional tag having a highest weighting among the plurality of tags specific to the user

Id. at 27. This limitation specifies that, in response to positive input, the '786 Patent processes the tags associated with the image and determines “at least one additional tag” to add to the next set.

Id. The “one additional tag” is determined by “weighting” tags within a plurality based on the number of times each is associated with prior favorable or unfavorable preferences. *Id.* Meta refers to this limitation as the “determining weightings” limitation. ECF No. 112-11 at 24. The Court adopts this shorthand for purposes of this Order.

Meta argues that Plaintiff pled no facts indicating Meta uses a weighting method to curate posts. *Id.* Although Meta admits it “account[s] for user preference,” it argues this does not “support a reasonable inference that for each image presented and positively interacted with, Instagram applies ‘at least one additional tag’ to the user profile.” *Id.*¹⁸ The Court disagrees.

Plaintiff provides several examples of how Instagram presents content to users that is related to prior searches but not explicitly requested. *See* ECF No. 12-1-1 at 71 (referencing image of fishing lure posted by account “xzonelures” and displayed on a separate user account who “does not follow ‘xzonelures’”); *see also id.* at 79 (presenting “Instagram app ‘Home’ page automatically

¹⁸ Meta also argues that Plaintiff inappropriately relies on an Instagram “blog post” which, Meta argues, establishes “that the Instagram service cannot infringe” because it “ranks posts based in part on engagement factors such as videos saved or posts shared.” ECF No. 112-11 at 24–25; *see also* ECF No. 112-1-1 at 96 (citing INSTAGRAM BLOG, Amogh Mahapatra, *Designing a Constrained Exploration System* (Dec. 10, 2020), <https://about.instagram.com/blog/engineering/designing-a-constrained-exploration-system>). However, Plaintiff cites this post as support for the '705 Patent infringement claims, not the '786 Patent. This argument is misplaced.

displaying duck-hunting content, related to but separate from fishing content (user did not search or like any duck hunting content prior to this.)”); *id.* at 84 (citing Instagram’s “topics we think you might be interested in” page which describes how after a fictional user, Jon, “‘likes’ Facebook Pages regarding famous musicians,” Instagram will “think [the user] has an interest in ‘music’” and “based on this interest . . . might show him an ad for a local record shop or an online music publication”).

Furthermore, throughout the claim chart, Plaintiff clearly identifies the purported method Meta uses to generate and present this content. *Id.* at 68–69 (alleging Meta “collects and stores user preference data in order to present tailored content to the user,” tracks tags for computer processing, then adds tags “based on the user’s preference to the content that includes the original tags”); *id.* at 78 (alleging Instagram identifies related content by “prioritize[ing] content associated with tags associated with the preferred content”); *id.* at 81 (contending “that as users reinforce and expand their profile of preferences, automatically displayed content will gravitate towards that which has been demonstrated to have the most positive responses by the user”). In doing so, Plaintiff cites Instagram’s settings, which explicitly state that the application collects user data based on activity on Instagram, across Meta products, and even “off our Products.” *Id.* at 83.

Additionally, at several points, Plaintiff identifies metrics that Meta allegedly uses to weight content. *Id.* at 85 (contending the “the weight of the tag may also be associated with the last time seen or frequency of the content pertaining to the tag”); *id.* at 78–85 (asserting that metrics may include “scrolling immediately” “not clicking on the advertisement,” or “clicking on a product or advertisement”).

The Court finds that Plaintiff has identified the Accused Product, provided sufficient detail as to its theory of infringement, and, thus, has “place[d] the alleged infringer on notice as to what

he must defend.” *McZeal v. Sprint Nextel Corp.*, 501 F.3d 1354, 1357 (Fed. Cir. 2007). Indeed, without discovery, it is unclear how Plaintiff could provide more detail on Meta’s specific weighting system.

Meta’s motion to dismiss Plaintiff’s direct infringement claim regarding the ’786 patent is denied.¹⁹

2. ’705 Patent

Plaintiff also alleges that Meta violated Claim 1 of the 705 Patent. *See generally* ECF No. 112-1. Claim 1 includes:

A computer-implemented image search method filtered by multiple human-machine inputs on images presented to a user of the image search method, the method comprising the steps of:

[. . .]

adjusting weights of at least some of the tags based on an association relative to tags within the same category of tags to which the subsequent digital image belongs;

ECF No. 112-1-1 at 56. The Court will refer to this as the “’705 weighting” limitation.

Plaintiff alleges that Meta infringed upon this limitation by using “a ranking system in its candidate selection process that acts as a weighting system.” *Id.* at 107.²⁰ Specifically, Plaintiff alleges “the ranking system is an aggregate of different factors such as engagement, relevance, user interests, content quality, and freshness,” and that “tags [are] one sub element in the ranking system but would still affect the ranking of potential subsequent candidate posts.” *Id.* As support

¹⁹ The Court notes that Meta did not argue that Plaintiff pled facts inconsistent with the “only one electronic image” limitation of the ’786 Patent and the “transition [and] replace” limitation of the 705 Patent, both of which require the underlying application to present a single image to users at a time. Although the claim charts present examples of Instagram displaying nine to twelve images to users after they search the term “fishing,” the Court refrains from dismissing the complaint on this point. Because Meta did not object to the complaint on these grounds, Plaintiff has not been given an opportunity to defend against this argument. *See Eon-Net LP v. Flagstar Bancorp.*, 249 F. App’x 189, 193–94 (Fed. Cir. 2007), *aff’d sub nom. Eon-Net LP v. Flagstar Bancorp.*, 653 F.3d 1314 (Fed. Cir. 2011) (“[A] court may not sua sponte grant summary judgment on a particular ground without giving the non-moving party notice and an opportunity to present evidence and argument in opposition.”); *see also OSRAM Sylvania, Inc. v. Am. Induction Techs., Inc.*, 701 F.3d 698 (Fed. Cir. 2012); *Plantronics, Inc. v. Aliph, Inc.*, 724 F.3d 1343, 1357 n.3 (Fed. Cir. 2013).

²⁰ The Court understands the “candidate selection process” refers to content that are “candidates” for posting.

for these allegations, Plaintiff cites to Instagram’s settings and several blog posts published on Instagram’s website.²¹

Meta argues that this claim fails on two points. First, Meta asserts that Plaintiff failed to define a “category” of tags. ECF No. 112-11 at 25 (objecting that Plaintiff did not “allege what in the Instagram service Ask Sydney contends is that ‘category’”). Second, Meta argues that Plaintiff failed to show that Instagram uses “tags” in its ranking system, because the sources cited in the claim chart do not explicitly reference tags. *Id.* Thus, Meta argues “Ask Sydney fails to explain how the tags [are] categorized or how the weight of some tags would be adjusted relative to tags within the same category.” *Id.*

Meta is correct that the ’705 Patent specifications do not define “category of tags.” However, the specifications provide general example of categories “such as meal, type of food, etc.” ECF No. 112-1-1 at 50. To the extent that Meta desires a more specific definition, this argument is better left for claim construction.

Meta’s second argument, attacking Plaintiff’s use of an Instagram blog post, is unpersuasive. ECF No. 112-11 at 25. The blog discusses Instagram’s “Suggested Posts” feature and states that Instagram ranks candidate posts based on user engagement. ECF No. 112-1-1 at 96.²² When users engage with images, they implicitly engage with the descriptions accompanying an image, i.e., the tags. Moreover, Plaintiff’s complaint is not limited to the Suggested Posts feature. *See id.* at 97 (demonstrating results from search of “fishing” keyword or tag); *id.* at 98 (Instagram Reels). Plaintiff alleges that Instagram ranks potential content “based on engagement

²¹ ECF No. 112-1-1 at 96 (citing META, *Meta for Developers: Hashtag Search- Instagram Platform*, <https://developers.facebook.com/docs/instagram-api/guides/hashtag-search>; INSTAGRAM BLOG, Amogh Mahapatra, *Designing a Constrained Exploration System* (Dec. 10, 2020), <https://about.instagram.com/blog/engineering/designing-a-constrained-exploration-system>).

²² *See* INSTAGRAM BLOG, Amogh Mahapatra, *Designing a Constrained Exploration System* (Dec. 10, 2020), <https://about.instagram.com/blog/engineering/designing-a-constrained-exploration-system>).

and content” across these features. *Id.* at 96 (“The Instagram app offers specific user engagement input options to users such as the like and ‘Not Interested’ buttons. This facilitates a filtering system throughout the Instagram app’s features so that based on user inputs, subsequent images will have their internal ranking either increase or decrease.”); *id.* at 102 (“Candidate generation consists of fetching every candidate that the user might be interested in. Each candidate in turn will contain tags that the user is interested in. Next a ranking system will narrow down the selected candidates based off factors such as engagement, relevance, user interests, content quality and freshness.”).

Finally, Plaintiff need not identify the specific weighting scheme used by Instagram. Patentees do not need to prove their case at the pleading stage. *Bot M8*, 4 F.4th at 1346. Moreover, the ’705 Patent specifications explicitly state that the weighting and associational mapping of tags will vary by application. *See* ECF No. 112-1-1 at 50 (stating that “the threshold for determining the association may vary without departing from the spirit and scope of the present disclosure”); *id.* (“Weighting can be based on any type of metric or schema” including “which tag has the highest association with one tag, more than one tag, or all of the tags of the set of tags associated with the previous image that the user indicated” a preference for). Accordingly, the method encompasses associational and weighting schemes without specifying what “factors or metrics” must be used. Finally, Plaintiff cites to Instagram sources stating the application “uses engagement data” to identify accounts “which are thematically and topically similar to one another.” Thus, without using the same terminology, it appears that Instagram utilizes a similar categorical grouping of accounts to generate proposed topics as the ’705 Patent.

Plaintiff has provided sufficient detail as to its theory of infringement. Meta’s motion to dismiss Plaintiff’s direct infringement claim regarding the ’705 Patent claim is denied.

C. Microsoft

Plaintiff alleges that Microsoft, through its Bing search engine, directly infringed upon “one or more claims, including without limitation at least claim 1” of the ’786 and ’705 patents. ECF No. 113-1 at 5.

1. ’786 Patent

Microsoft Advertising displays advertisements across its platforms, including Bing, Yahoo!, and DuckDuckGo search engines. ECF No. 113-1-1 at 60–61. Plaintiff alleges that Microsoft infringed Claim 1 of the ’786 Patent by using cookies, tags, keywords, and “other content that the user has accessed” to determine which advertisements to display and then gauges user preference for ads depending on engagement. *Id.* at 60–63.^{23,24}

Claim 1 of the ’786 Patent includes:

generating a sequence of electronic images presented to the user one at a time on the display of the electronic device by repeating the transmitting, the causing, the receiving of the input, the processing, and the determining of the next electronic image during the session with the next electronic image in place of the one electronic image to direct the user to the current interest associated with the category of physical objects.

Id. at 27. As shorthand, the Court will refer to this as the “generating” limitation.²⁵

The “generating” limitation illustrates the iterative process that distinguishes the ’786 Patents from methods of applications. *See* ECF No. 108-11-3 at 12 (arguing method involves an “active and dynamic manipulation of a plurality of tags in response to user inputs during a discrete

²³ ECF No. 113-1-1 at 60–61 (citing MICROSOFT, *Advertising: Personalized Ads*, <https://about.ads.microsoft.com/en-us/resources/policies/personalized-ads>; MICROSOFT, *Advertising: Learn how Microsoft Advertising works*, <https://help.ads.microsoft.com/#apex/ads/en/53102/0>).

²⁴ *Id.* at 63 (stating that “clicking the ad or spending time while the ad is in view” indicates as a positive preference, while “ignoring the ad or quickly moving past” signals a negative preference); *id.* at 64 (alleging “content pertaining to tags that are perceived as negative will be less likely to be shown to that specific user”).

²⁵ Microsoft refers to this limitation as the “one at a time” limitation. ECF No. 113-10 at 13. To avoid confusion with the “only the one” limitation which is distinct from the above, see *supra* Section (II)(A)(1), the Court will refer to this as the “generating” limitation.

session of an application” distinct from requiring repeated queries). Within a single “session,” the ’786 Patent generates a sequence of images in response to user input in a way that does not require “a user to repeatedly update a search query based on a plurality of results returned in response to a previous search query.” *Id.* During this process, the method logs input from the user which allows it to “modify associations between” tags and images. ECF No. 113-1-1 at 23. This is shown in Figure 2C, below.

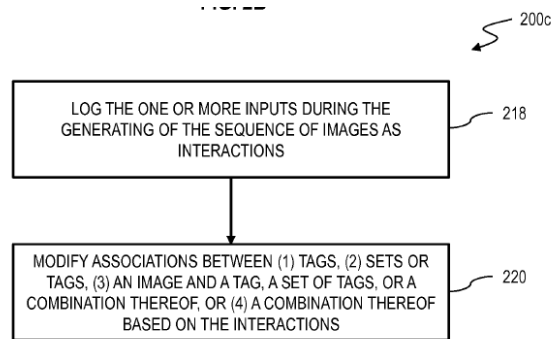


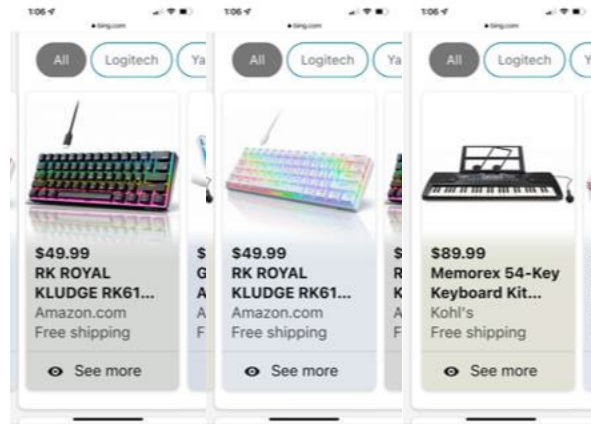
FIG. 2C

ECF No. 108-1-1 at 6.

Like the ’705 Patent, *see supra*, Section II(A)(2), the ’786 Patent relies on an underlying application to log tags, evaluate associations between tags, generate the resulting images, and present these images “one at a time.” *See* ECF No. 113-1-1 at 17 (“The applications [] control the user interface devices [] and the display devices [] to present the images to the user and to receive inputs from the user indicating the user’s preferences for the images.”); *id.* at 25 (“Specifically, upon the user selecting one of the user interface elements [], the UI 400a transitions to UI 400b. UI 400b includes a new image 402b.”); *id.* (“In response to the user selecting the user interface element [], the application causes a transition between the UI and the UI.”) (internal references to figures omitted); *id.* (“Upon selecting an entity, such as the first entity associated with the first user

interface element [], the application [] causes a transition between the UI to the UI.”) (internal references to figures omitted).

As examples of Microsoft infringing upon the “generating” limitation, Plaintiff provides the below advertisements in response to a search query for “keyboards,” and argues that these demonstrate “a sequence of electronic images that can be shown one at a time when zoomed in on by the user.” *Id.* at 68–69.

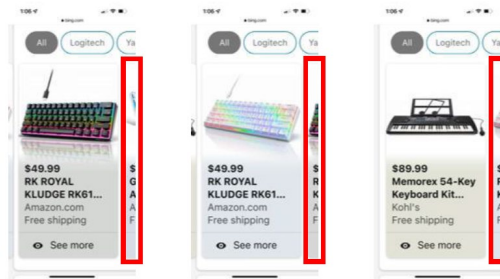


Id.

Microsoft argues that these images are inconsistent with the “generating” limitation because a single-image view is only presented “when zoomed in by the user.” ECF No. 113-10 at 13–14. Microsoft maintains this is inconsistent with the “generating” limitation which requires a single image presentation performed by the underlying application, not a user. *Id.*

The Court agrees. First, Plaintiff’s provided exhibits show that multiple images are presented to the user. *See id.* at 13. Even when zoomed in, Plaintiff’s exhibit reflects multiple advertisements, as seen in the red box in the below images. *See* ECF No. 113-10 at 14. This is inconsistent with the “generating limitation” which requires “electronic images [to be] presented

to the user one at a time.” ECF No. 113-1-1 at 27.²⁶ Furthermore, the ’786 Patent requires the underlying application to present the single image. ECF No. 113-1-1 at 17, 25. In contrast, Plaintiff specifically states that the user must zoom in on the images to view them one at a time. ECF No. 113-1-1 at 68 (“Microsoft Advertising on bing [sic] shows a sequence of electronic images that can be shown one at a time when zoomed in by the user.”). Thus, Plaintiff has failed to plead facts indicating that Microsoft utilizes an underlying application to generate, present, and transition amongst images presented to the user.



ECF No. 113-10 at 14.²⁷

Microsoft’s motion to dismiss Plaintiff’s direct infringement claim regarding the ’786 Patent claim is granted.

2. ’705 Patent

Plaintiff alleges that Microsoft infringed upon Claim 1 of the ’705 Patent. Claim 1 reads:

²⁶ For the same reason, the Court agrees with Microsoft that Plaintiff has not pled facts consistent with “transmitting . . . one electronic image” and “causing a presentation of only the one electronic image” limitations. *See* ECF No. 113-10 at 17.

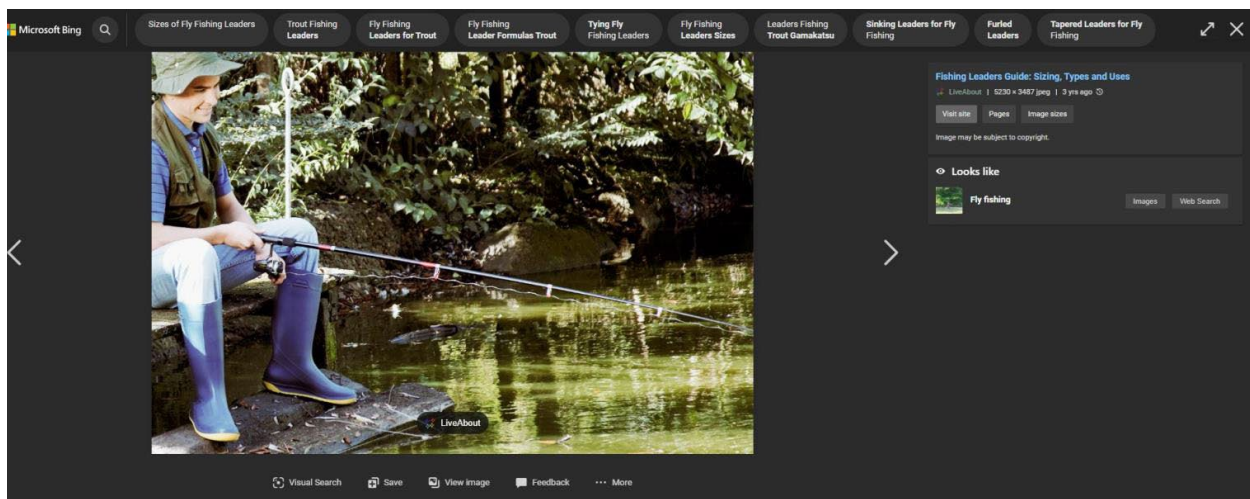
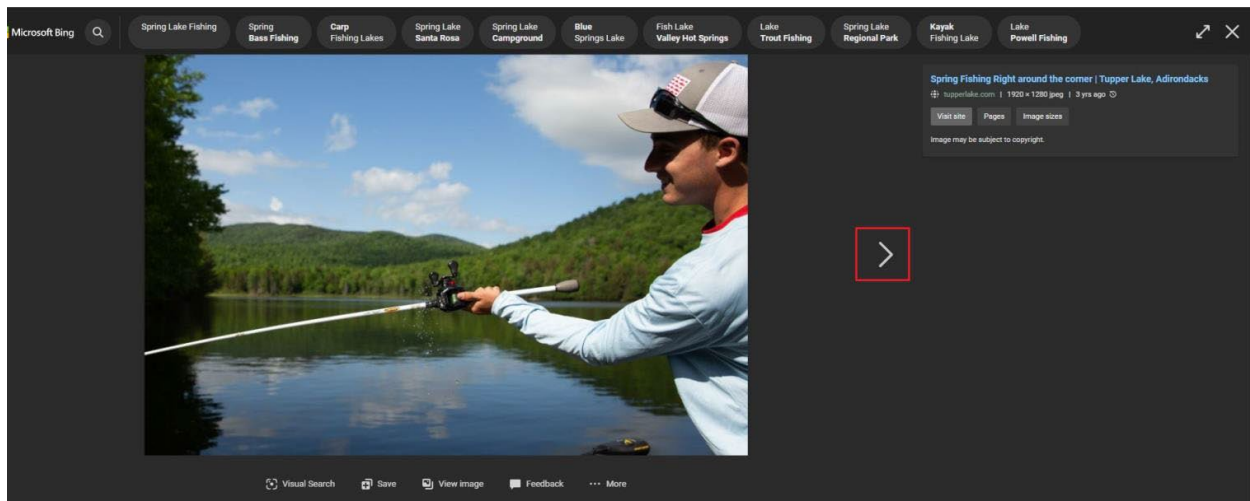
²⁷ Plaintiff provides examples of single-image advertisements posted on Bing in response to search queries for “best places to travel” and “travel destinations.” *See* ECF No. 113-1-1 at 61–62. Although these satisfy the “images presented to the user one at a time” aspect of the “generating” limitation, the examples remain insufficient exemplars of the “generating” limitation itself. The essential function of the “generating” limitation is its iterative process. *See* ECF No. 108-11-3 at 12. Although Plaintiff includes examples of single-image advertisements, Plaintiff does not allege that these images are presented to the user for the purpose of eliciting user feedback in order to generate a *series* of images within a single search session. *See* ECF No. 113-1-1 at 22 (“The computer-implemented method or algorithm [] generates a sequence of images based on repeating the above process of at least presenting the image to the user and awaiting an input from the user regarding whether the user has a positive or negative, or neutral, preference for the physical object represented by the next image.”).

A computer-implemented image search method filtered by multiple human-machine inputs on images presented to a user of the image search method, the method comprising the steps of:

[...]

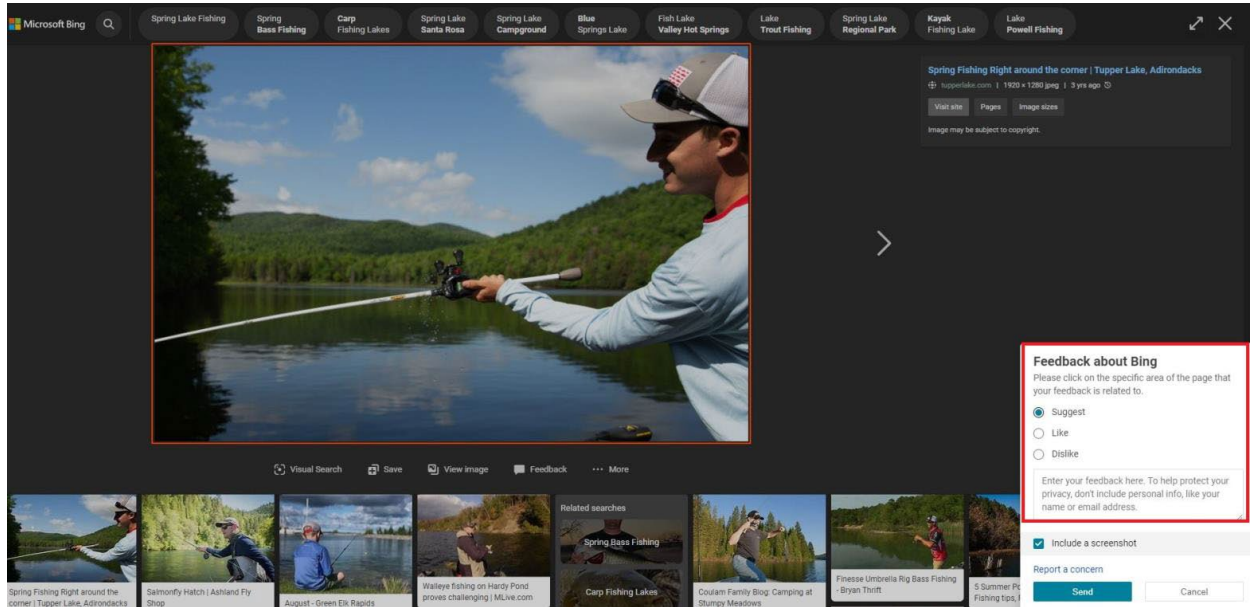
transitioning the one of the digital images with the subsequent digital image on the video display device to replace the one of the digital images with the subsequent digital image on the video display device

ECF No. 113-1-1 at 56. Plaintiff states that “Microsoft’s Bing search engine will display digital images and transition to subsequent digital images on a user’s video display device,” *id.* at 89, and offers the below as an example:



Id. at 90.

Microsoft asserts that Plaintiff uses “creative cropping” and directs the Court to page 77 of the claim chart, which indicates that the first image above was displayed with approximately eight other images, as indicated below. ECF No. 113-10 at 16.



ECF No. 113-1-1 at 77. Furthermore, Microsoft asserts that these images transition only upon clicking the white arrow. Because the images will only transition when a user clicks the arrow, Microsoft contends it does not perform the “transitioning” limitation. ECF No. 113-10 at 16–17.

The Court agrees that Plaintiff has not provided facts alleging that Microsoft’s products transition between images. Drawing on the Court’s “experience and common sense,” *Iqbal*, 556 U.S. at 663–64, the white arrow indicates that the user input is required to transition images. Because the ’705 Patent requires the method or application to perform this function, *supra* Section (II)(A)(2), Plaintiff has not pled facts consistent with infringement.

Microsoft’s motion to dismiss Plaintiff’s direct infringement claim regarding the ’705 Patent claim is granted.²⁸

²⁸ Because the Court resolves Plaintiff’s claims against Microsoft on this point, the Court need not address Microsoft’s arguments that Plaintiff did not plead adequate facts on the so-called “unfavorable indication” and “iterative” limitations. ECF No. 113-10 at 18–19 (“arguing Ask Sydney has not shown “that selecting ‘Dislike’ has any effect on

CONCLUSION

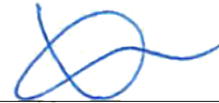
Defendant Amazon's motion to dismiss (ECF No. 108-11), case number 6-23-cv-108, is **GRANTED IN PART** and **DENIED IN PART**. The motion is denied as to its invalidity contentions, but granted as to its allegations that Plaintiff has failed to state a claim of direct infringement of the '786 and '705 Patents. Plaintiff's claims are **DISMISSED**.

Defendant Meta's motion to dismiss (ECF No. 112-11), case number 6-23-cv-112, is **DENIED** as to both the invalidity and infringement allegations.

Defendant Microsoft's motion to dismiss (ECF No. 113-10), case number 6-23-cv-113, is **GRANTED**. Plaintiff's claims against Microsoft are **DISMISSED**.

It is so **ORDERED**.

SIGNED this 14th day of August, 2023.



Xavier Rodriguez
United States District Judge

which 'subsequent digital image' is next shown. It doesn't."); *id.* at 21 (disputing that the "iterative" limitation was adequately pled because "in other words, employing Ask Sydney's own evidence, the user's actions of 'providing feedback about Bing' have *no impact* on the selection of the subsequent image") (emphasis in original).